

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of setting a transport format combination (TFC) in a broadband code division multiple access (CDMA) communication system, the method comprising:

a) transmitting from a radio resource control (RRC) layer both transport format set (TFS) information and transport format combination set (TFCS) information during a channel initialization for data transmission among respective layers of the broadband CDMA communication system;

b) selecting at a medium access control (MAC) layer an initial TFC for preferentially allocating a maximum packet data unit (PDU) value to a transmission channel on which a logic channel having a relatively high priority among a plurality of transmission channels has been mapped, wherein said allocation is initially achieved by analyzing the received TFS information and the TFCS information;

c) transmitting an initial PDU value from the MAC layer to a radio link control (RLC) layer including respective logic channels by allocating the initial PDU value according to the initial TFC to the respective logic channels before receiving buffer occupancy information from the radio link control (RLC) layer; and

d) transmitting at the radio link control (RLC) layer initial transmission data along with buffer occupancy information of a transmission buffer to the MAC layer based on the received initial PDU value.

2. (Original) The method as claimed in claim 1, wherein the selecting step comprises:

determining at the MAC layer a mapping status of the logic channels for the respective transmission channels, and determining a priority of the respective logic channels;

selecting among the TFCS the TFC that allocates the maximum PDU value to the transmission channel on which the logic channel having the highest priority is mapped;

re-selecting among selected TFCs the TFC that allocates the maximum PDU value to the transmission channel on which the logic channel having the next-to-highest priority is mapped if a plurality of TFCs are selected; and

repeating the third substep until one of the TFCs is selected, and if one of the TFCs is selected, setting the TFC as the initial TFC.

3. (Original) The method as claimed in claim 1, wherein step c) comprises:

allocating at the MAC layer the initial PDU value according to the initial TFC to the corresponding transmission channel;

allocating the allocated initial PDU value to the logic channel having the highest priority among the logic channels mapped on the respective transmission channel; and

transmitting the initial PDU value allocated to the logic channel to the RLC layer including the logic channel.

4. (Currently Amended) The method as claimed in claim 1, wherein further comprising:

comparing at the RLC layer the received initial PDU value and a maximum transmission amount of the transmission buffer provided in the RLC layer, and if the initial PDU value is larger than the maximum transmission amount, the RLC layer sets the maximum transmission value as the final PDU value, while if the initial PDU value is smaller than the maximum transmission amount, it sets the initial PDU value as the final PDU value.

5. (Currently Amended) The method as claimed in claim 1, wherein further comprising:

receiving at the RLC layer the initial PDU value transmitted to the MAC layer where the initial transmission data is generated along with buffer occupancy information of the transmission buffer by dividing or combining the initial transmission data according to a set final PDU value during the generation of the initial transmission data; and

setting the received initial PDU value as the final PDU value.

6. (Currently Amended) A method of setting a transport format combination (TFC) in a broadband code division multiple access (CDMA) communication system, the method comprising the steps of:

transmitting from a radio resource control (RRC) layer both transport format set (TFS) information and transport format combination set (TFCS) information during a channel

initialization for data transmission among respective layers of the broadband CDMA communication system;

selecting at a medium access control (MAC) layer an initial TFC using the received TFS information and the TFCS information, allocating an initial PDU value according to the initial TFC to the logic channels mapped on the corresponding transmission channel;

transmitting from the medium access control (MAC) layer the initial PDU value to a radio link control (RLC) layer including the respective logic channels before receiving buffer occupancy information from the radio link control (RLC) layer; and

transmitting at the radio link control (RLC) layer an initial transmission data along with buffer occupancy information of a transmission buffer to the MAC layer based on the received initial PDU value.

7. (Currently Amended) A method of setting a transport format combination (TFC) in a broadband code division multiple access (CDMA) communication system, the method comprising:

receiving at a medium access control (MAC) layer both transport format set (TFS) information and transport format combination set (TFCS) information from a radio resource control (RRC) layer during a channel initialization for data transmission among respective layers of the broadband CDMA communication system;

selecting an initial TFC by analyzing the received TFS information and the TFCS information, wherein the initial TFC preferentially allocates a maximum packet data unit (PDU) value to a transmission channel on which a logic channel having a relatively high priority among a plurality of transmission channels has been mapped;

allocating an initial PDU value according to the initial TFC to the logic channels mapped on the corresponding transmission channel;

transmitting the initial PDU value to a radio link control (RLC) layer including the respective logic channels before receiving buffer occupancy information from the radio link control (RLC) layer; and

transmitting at the radio link control (RLC) layer initial transmission data along with buffer occupancy information of a transmission buffer to the MAC layer based on the received initial PDU value.